# Chapter 2: Version Code and Identification Numbers

## Version Code

The version code is a numeric code that uniquely identifies a record with a specific release version of the TIGER/Line® files. All record types have a 4-character field for the version code.

The Census Bureau is reserving all version codes from 0000 through 5000. The Census Bureau reserves these numbers for future TIGER/Line® file releases. The version code for the TIGER/Line® files, 1995, is 0024. The version codes for earlier releases of the TIGER/Line® files are as follows:

0000 — TIGER/Line® Precensus File, 1990
0002 — TIGER/Line® Initial Voting District Codes File, 1990
0003 — TIGER/Line® Census File, 1990
0005 — TIGER/Line® File, 1992
0021 — TIGER/Line® File, 1994

## TIGER/Line® Identification Number (TLID)

The 1995 TIGER/Line® files use a permanent 10-digit TIGER/Line® record identification number (TLID) to uniquely identify a complete chain for the Nation.

### TLID Codes

The 10-digit TLID will not exceed the value $2^{31} - 1$ (2,147,483,647) and will represent the same complete chain in all versions of this file, beginning with the TIGER/Line® Precensus Files, 1990. Topological changes to the complete chain will cause the TLIDs to change. For instance, when updates split an existing complete chain, each of the new parts receives a new TLID; the old TLID is not reused. See the section, *User-Defined Changes to the TIGER/Line® Files*, in this chapter.

Record Type R contains the range of unique complete chain record numbers assigned to a census file in a nationwide scheme. Record Type R has the lowest (minimum) and the highest (maximum) record numbers for the range. Permanent record numbers are

assigned within each partition of the Census TIGER® data base. Numbers are assigned to complete chains beginning at the minimum value and increasing the current value by one until it reaches the maximum value. Record Type H, which first appeared in the 1994 version, shows the history of a particular TLID, whether combined or split, and its predecessors or successors.

### TLID Record Locations

The TLID field appears in columns 6 through 15 of the following record types:

- Record Type 1
- Record Type 2
- Record Type 3
- Record Type 4
- Record Type 6
- Record Type I
- Record Type Z

The TLID field appears in columns 11 through 20 in Record Type H.

### TLID Record Linkages

The TLID field provides a key for linking records containing primary attributes describing the complete chain or the geographic entity codes associated with the left and the right sides of the complete chain. Record Type I contains the key fields required to link the TLID and the GT-polygon identification fields, CENID and POLYID. See Figure 1-2 in Chapter 1.

### TLID Sort Sequence

Each record type is a separate file. The records in each record type do not have an overall sort sequence. Data users may wish to sort the file by TLID in order to facilitate record linkages.

## User-Defined Changes to the TIGER/Line® Files

### TLID as a Standard Identification Number

Users should store the record number and the version code associated with each complete chain in their local systems to ensure their ability to match records with earlier or later versions of the TIGER/Line®

files. The record and version numbers of each complete chain provide an important link to the corresponding complete chain in the Census TIGER® data base. This key will allow users to transfer new information from later Census Bureau TIGER/Line® releases into their data base, and to provide the Census Bureau with readily usable updates, should they wish to do so.

### Feature Changes

Users should assign a new record number (TLID) and a version number with a value greater than 5000 to each new complete chain they create in order to avoid duplicating a Census Bureau-assigned record number that may appear elsewhere in the national file. Users should create a new record for each new complete chain, including those formed when a new intersection splits an existing complete chain. If a complete chain has been assigned different feature identifiers, attributes, and/or coordinate positions without being merged with or split from another complete chain, it is a modified complete chain and does not need a new TLID. Users may wish to mark these changes; the Census Bureau will use this information to identify changes more quickly and accurately.

Users should assign a version code equal to 4999 for all deleted complete chain and landmark records. This version code will allow the Census Bureau to positively identify all user deletions. Users may assign or reassign polygon and landmark identification numbers in any manner that uniquely identifies each within a file.

## TIGER/Line® Polygon Identification Numbers (CENID, POLYID)

The Census Bureau uses two fields, the census file identification code (CENID) and the polygon identification code (POLYID), to uniquely identify GT-polygons.

The CENID is a Census Bureau alphanumeric identifier used to uniquely number the GT-polygons. CENIDs are a recode of the FIPS state and county codes for the partitions (files) that form the national Census TIGER® data base. Since the partitions may include only a portion of a county, the 1995 TIGER/Line® files may contain multiple CENIDs.

The polygon identification number (POLYID) is a temporary number assigned to every polygon in the Census TIGER® data base. Although this number is part of the data base design, it is a dynamic number and can change between different versions of the TIGER/Line® files. The Census TIGER® data base does not contain permanent identifiers for GT-polygons as it does for complete chains. POLYID is unique only within CENID; in cases where a TIGER/Line® file contains more than one CENID, the POLYID may not be unique within that file.

## CENID and POLYID Codes

The CENID is a 5-character alphanumeric code. Record Type R contains a list of all valid CENIDs used in each county TIGER/Line® file. The CENID may be either a five-digit numeric or an alphabetic followed by a four-digit numeric code.

The POLYID code is an integer identification number, without leading zeros, applied to each GT-polygon. The POLYID with a value of 1 refers to the *universal polygon*, the polygon that refers to all space outside a county coverage area and is excluded from Record Types A, I, P, and S.

The range of POLYID numbers in a county file may contain gaps or skipped numbers resulting from the use of one partition (CENID) for more than one TIGER/Line® county file. POLYID numbers also may duplicate in a single TIGER/Line ® file as they are unique only within CENID. A single TIGER/Line® file may contain CENID information from many other census files.

Either the CENIDL and POLYIDL, or CENIDR and POLYIDR fields in Record Type I will have a blank value where the complete chain is a county boundary.

## CENID and POLYID Record Locations

The CENID and POLYID fields appear in the following record types:

- Record Type 8 — Records exist only for area landmark GT-polygons
- Record Type 9 — Records exist for all KGLs
- Record Type A — Records exist for all GT-polygons

- Record Type I — Contains left- and right-side CENIDs and POLYIDs associated with each complete chain
- Record Type P — Records exist for all GT-polygons
- Record Type R — Contains only CENID; Record Type R lists the minimum and maximum possible TLIDs, and the highest TLID from each census file (CENID) used to generate the current version of the TIGER/Line® files.
- Record Type S — Records exist for all GT-polygons

## CENID and POLYID Record Linkages

The 1995 TIGER/Line® files use both the CENID and POLYID fields to link all of the polygon record types together (Record Types A, P, and S), to link the GT-polygons to the associated complete chains, and to link area landmarks to GT-polygons (see Figure 1-2, in Chapter 1).

The CENID and POLYID fields link the geographic area codes in Record Types A and S to Record Type P which contains the coordinates for an internal point in the GT-polygon. The 1995 TIGER/Line® files include a Type A and a Type S record for each Type P record.

Record Type I provides a link between the GT-polygon records and the record types containing complete chain attributes (Record Types 1, 2, 3, 4, and 6). Each Type I record identifies a complete chain by TLID with a left- and right-side GT-polygon. Here CENIDL and POLYIDL contain the CENID and POLYID codes for the GT-polygon on the left side of the line. Likewise, CENIDR and POLYIDR contain the CENID and POLYID codes for the GT-polygon on the right side of the line. There is a Type I record for each Type 1 record. All CENID and POLYID codes appear in Record Type I.

To find all of the complete chains that form the boundary of a specific GT-polygon, search Record Type I for a match with either the left or the right CENID and POLYID. Where the left and the right CENID and POLYID codes are the same, the complete chain is internal to the GT-polygon (e.g., a dead-end street).

Record Type 8 provides a link between the GT-polygons and the landmark feature records. See the section, *TIGER/Line® Landmark Identification Numbers,* in this chapter.

### CENID and POLYID Sort Sequence

The POLYID codes appear in numeric sequence by alphanumeric CENID in Record Types 9, A, P, and S. There is no systematic CENID or POLYID sequence in Record Type I.

## TIGER/Line® Landmark Identification Numbers (LAND)

The landmark feature identification number (LAND) is a 10-digit number that uniquely identifies both point and area landmarks within each county file. LAND is not a permanent number; the Census Bureau assigns LANDs each time a new version of the TIGER/Line® files is produced.

In rare situations, Record Type 7 may list the same LAND number more than once if the landmark has more than one feature name. Each name appears as a separate data record in Record Type 7. These data records describe the same landmark and have the same LAND.

Overlapping landmarks (e.g., a pond located in a park) may cause more than one name to be assigned to a GT-polygon. However, overlapping landmarks are separate features with different LANDs.

### LAND Codes

The LAND is an integer number that does not contain leading zeros. It is assigned during the extraction of the data and is not a permanent number. There may be gaps in the sequence of the LANDs in Record Type 7 because of the way this information is extracted.

## LAND Record Locations

The LAND field appears in the following record types:

- Record Type 7 — Landmark attributes
- Record Type 8 — Linkage record containing the LAND and the CENID and POLYID fields

## LAND Record Linkages

Record Type 8 links each area landmark's LAND with a CENID and POLYID. Each area landmark will have one or more Type 8 records that together identify all of the GT-polygons that make up the landmark.

## LAND Sort Sequence

Record Type 7 and 8 contain records sorted in ascending order by LAND. In Record Type 8, each LAND is repeated for each GT-polygon covered by the area landmark.